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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/588,530   | 08/07/2006  | Kunihiko Ishizaki    | 60004-118US1        | 9566             |
| 69713 7590 04/09/2008<br>OCCHIUTI ROHLICEK & TSAO, LLP<br>10 FAWCETT STREET<br>CAMBRIDGE, MA 02138 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| LE, HOA T  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 1794   |             |                      |                     |                  |
| NOTIFICATION DATE  |             | DELIVERY MODE        |                     |                  |
| 04/09/2008   |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

INFO@ORTPATENT.COM

# Office Action Summary

**Application No.**

10/588,530

**Applicant(s)**

ISHIZAKI ET AL.

**Examiner**

H. T. Le

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-08)  
Paper No(s)/Mail Date Aug. 06 & Oct. 07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 3-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3-4, "impact" has no proper antecedent basis. What is being impacted? The particulate agent, the water-absorbing resin or the agglomerated particles? Thus the property as claimed is indefinite.

In claims 5-10, the term "further" in these claims render the claim confusing.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Johnson (US 5,684,106).<sup>1</sup>**

Claim 1: Johnson teaches a particulate water absorbing agent having a CRC of at least 33 g/g ore more (col. 3, lines 13-19), particle size of 200 to 600  $\mu\text{m}$  (col. 4, lines 46-50);

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<sup>1</sup> Cited by Applicant.

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the absorbing agent is formed by surface crosslinking a water absorbing resin particle with a monomer having a carboxylic acid group (col. 3, lines 18-32). The particulate agent is formed after being comminuted and ground (col. 4, lines 40-45 and col. 6, lines 22-25); therefore, the shape of the particulate agent is necessarily irregular. The general particle size of 200 to 600  $\mu\text{m}$  would have encompassed a mass median particle size of 200 to 400  $\mu\text{m}$ . In the alternative, one of ordinary skill in the art would have arrived at the median particle size through routine experimentation.

Claim 2: The polymerized gel is dried (see col. 4, lines 43-45 and example 1, col. 6, lines 22-25); therefore, it is expected that the water content is low and within the claimed range.

Claim 5: Liquid absorption is under 60 seconds (see Table 2 at col. 7).

Claim 6: See col. 6, lines 45-55 and col. 7, lines 7-8.

Claims 4 and 7-10: Other properties are deemed met by inherence because the particulate absorbing agent taught by Johnson comprises the same components, having the same particle size and formed by the same crosslinking polymerization as the claimed particulate absorbing agent.

Claim 11: The particulate agent further comprises a silica (inorganic particle). See col. 5, lines 5-15.

Claims 12-14: See col. 7, lines 9-11.

Claims 15-21: See rejections to claims 1-14 above and Examples.

**4. Claims 1-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WADA et al (US 2002/0120074).<sup>2</sup>**

Claim 1: WADA teaches a particulate water absorbing agent comprising a surface crosslinked water absorbing resin by crosslinking polymerization of an unsaturated monomer having an acid group (paragraph [0035] and [0036]). The agent has an absorption capacity of 33g/g or more (paragraph [0057]); The particle has an irregular pulverized shape (paragraph [0133]). The term "average particle diameter" as reported by WADA is equivalent to the claimed "mass median particle size" (see paragraph [0396], and the mass median particle size is reported to be 300  $\mu\text{m}$  (example 1, paragraph [0336] & example 2, paragraph [0338]) to 320  $\mu\text{m}$  (example 3, par. [0345]) which is well within the claimed range of 200-400  $\mu\text{m}$ . The particles have been classified with screens 850  $\mu\text{m}$ , 600  $\mu\text{m}$ , 500  $\mu\text{m}$ , 425  $\mu\text{m}$ , 300  $\mu\text{m}$ , 220  $\mu\text{m}$ , 150  $\mu\text{m}$  and 105  $\mu\text{m}$  (paragraph [0396]); which suggest that at least 95% of the particles have particle size of smaller than 600  $\mu\text{m}$  and larger than 150  $\mu\text{m}$ .

Claim 2: See paragraph [0133].

Claims 3-4 and 9: The particles are reported to be classified within specific screen sizes (paragraph [0396]) which would necessarily particle size distribution as recited in these claims

Claim 5: See paragraph [0263].

Claim 6: See paragraph [0212].

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<sup>2</sup> Cited by Applicant.

Claim 7: See Table 1 (col. 29).

Claim 8: The fluidity is met by inference because it corresponds to vortex water absorption speed (claim 7) and liquid permeation time (claim 5). See paragraph [0328].

Claim 10: The bulk density as claimed is considered met by inference because the particulate absorbing agent taught by WADA comprises the same components and possesses the same particle size as particles of the claimed invention as discussed in the rejections to claims 1-9 above. In addition, the method of making the particulate agent according to WADA is similar to the claimed method. See rejections to claims 15-21 below.

Claim 11: See paragraph [0224]

Claims 12-14: See paragraph [0231] and [0248].

Claim 15: See rejection to claim 1 and paragraph [0117], [0121], and [0126].

Claim 16: See paragraph [0131].

Claim 17: See paragraph [0120].

Claim 18: See paragraph [0181].

Claim 19: See paragraph [0218]

Claims 20-21: See examples.

5. References are cited as art of interest.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511.

The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mondays to Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/  
H. (Holly) T. Le  
Primary Examiner  
Art Unit 1794

March 29, 2008